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Notes on Asiatic Cholera.

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The subject of Asiatic cholera is one which at present interests every progressive member of the medical profession.

Prof. von Pettinkofer, in the *Munchener Medicinische Wochenschrift*, November, 1892, says that the etiology of cholera is an equation with three unknown quantities, namely: (x) a specific germ disseminated by human intercourse; (y) a factor dependent on place, which he calls "local predisposition"; and (z) the individual predisposition. The key to the solution of this equation must depend on the biological characteristics of the specific germ x. Having learned this, we may be able to decide what constitutes the "predispositions" of y and z; also what is necessary to neutralize the same; in a word, the necessary prophylaxis.

The coma bacillus, discovered by Koch, is now almost universally accepted as the specific cause of the disease.

The theory advanced by Prof. M. Peter, that the bacillus coli communis may become either cholerogenetic or dysenterogenetic, according to circumstances, I regard as untenable. He finds these so-called coma bacilli in the blood, which is not the case with the spirillum of Asiatic cholera. No such evolution as would be required by this theory has ever been demonstrated in any other bacteria or in any organisms of a larger development. If proven, it would be a microscopic demonstration of Darwinism.

After a study of the biological characteristics of the cholera spirillum, Dr. Sternberg informs us that dessication will kill it in a few hours if the stratum is a thin one; but that if the film is thick, the spirillum may survive as long as thirteen days. Sunlight exerts a deleterious effect.

He also found that the thermal death point is 52° C. or 125.6° F. in ten minutes. At 60° C. or 140° F. the spirillum is destroyed in a very brief time.

It will be inferred from such facts that cholera disinfection is comparatively easy. It would seem quite possible to exclude the disease by an efficient quarantine.

The appointment by the New York Academy of Medicine of a national quarantine committee to secure necessary legislation for the protection of this country against an invasion of Asiatic cholera is an action worthy of that association.

The requisite local precautions consist in good drainage and general cleanliness.

There is no necessity of any community suffering from an epidemic of cholera if such is not desired. Neither is it necessary for any healthy individual to suffer from the disease if proper precautions are observed.

The disease can only be contracted by the introduction of the coma bacillus into the stomach or intestinal canal. If introduced into the stomach, the acid condition of the gastric juice will, or should, destroy them. All indiscretions in diet should of course be scrupulously avoided. Also avoid fatigue, sudden changes of temperature, extremes of heat or cold, nervous excitement, or anything which will tend to depress the normal equilibrium of health. In short, be just as calm and happy and lazy as if sickness and suffering and death did not exist, and you will certainly escape the dreaded scourge.

It is advisable to eat only foods which have been thoroughly cooked, and to drink boiled water or acidulated drinks, avoiding all alcoholics.

Inoculation of cholera vaccine, according to Ferran's method, appears to be a reason-

able prophylactic measure. The objection that it will not give immunity because it is not introduced into the alimentary tract is not sustained.

The disease is evidently the result of toxines or ptomaines, generated by the bacilli, not by the mere presence of the bacilli.

Those who prefer this method of obtaining immunity may, however, introduce the culture into the stomach a la Profs. von Pettinkofer and Emmerich. The objection to this method is that the result of such inoculation is a mild case of Asiatic cholera, with the same dangers of infection that any other case of cholera would present. The differential diagnosis of the disease must depend upon the demonstration of the presence of the spirillum of Asiatic cholera. Koch's bacilli are smaller and have more of the corkscrew shape than that of cholera nostras or the curved bacilli of old cheese, discovered by Dr. Deneke. Dr. Lewis' bacillus, found in the mouth, will not grow in an alkaline medium, and is also larger than the coma bacillus. The only spirillum for which it may be mistaken is that of recurrent fever.

Dr. Stubb describes three methods of examining for cholera bacilli:

First, take two cover glasses, sterilize in the usual way, and dry them. Then place a drop of the rice-water discharge upon one of the glasses with a sterilized spatula, and spread the drop of rice-water discharge out upon the cover glass. Place the second glass upon the first and draw them asunder in order to cause an even and uniform spread of the material upon both glasses. As soon as they are thoroughly dry, draw them slowly three times through the flame of an alcohol lamp, holding them with a pair of forceps. Then take home and heat in a test tube a small portion of a watery solution of gentian violet or fuchsin. As soon as the fluid begins to smoke, pour some of it into a watch glass and drop the cover glasses into the fluid with the side containing the suspected material downward. Let them swim for about ten minutes, take them from the fluid, wash in sixty per cent. alcohol about two minutes, dehydrate by dipping for a few seconds in absolute alcohol, wait a few minutes until they are dry, and examine under a microscope with a power of one-fifteenth water immersion, or, better still, a one-twelfth oil immersion.

Although the above method is exactly the one used by Koch, we may fail to find any characteristic bacilli.

Through the kindness of Dr. Edward K. Dunham, I am able to present to you a specimen of the coma bacillus, taken from one of the cases occurring on Swinburne Island last September. I must confess that after studying the specimen, I find the written descriptions of the bacilli more accurate than the appearance under the microscope.

Another method which Dr. Stubb considers better is as follows: Place a drop of rice-water discharge upon a cover glass and put the latter with the drop of fluid downward upon a shallow glass cell. If this suspended drop, which may be stained with any of the basic anilene dyes, is examined under a powerful immersion lens, we will find a large quantity of bacteria alive. Among these the cholera bacilli will appear like a swarm of mosquitos, and among these occasionally a few spirilla of a wave-like form. This is the description by Koch of a drop of artificial beef-tea culture, and Dr. Stubb has no doubt that the same may be observed from rice-water discharges after the patient has been sick for some time.

The surest method suitable for diagnostic purposes will be the cultivation with nutritive gelatine upon glass plates, provided we are able on short notice to obtain the necessary nutritive gelatine of slightly alkaline reaction. The following formula is the most convenient one which I have been able to find: First, seventeen ounces good chopped meat, added thirty-four ounces distilled water and well stirred, remains standing in the ice-box twenty-four hours. Afterward the whole is strained through gauze by means of a press, and enough distilled water added to make thirty-four ounces. To this must be added two and one-half drachms table salt and one and one-half to three ounces of the finest gelatine; allow the

whole to dissolve by gentle heat, neutralize with sodium carbonate and add a little of the latter in excess to give the mass a slightly alkaline reaction, sufficient to turn red litmus paper slightly blue. The neutralized solution must be boiled an hour upon a water bath, and, still hot, filtered through paper. The filtrate boiled again and afterward put upon ice; must be clear and transparent. During the boiling process a turbidity may appear, caused by phosphates, which, however, will disappear as soon as the gelatine has been cooled upon ice. Supposing we are in possession of the necessary gelatine and desire to make the cultivation as above mentioned. For this purpose take an object glass, according to the size of the stage of the microscope, to enable us to examine the same in all directions with a lens. Put some of the nutritive gelatine in a test tube and warm it in hot water until the gelatine becomes fluid; then by means of a pipette, carefully transfer some of the gelatine to the object glass. The portion of the gelatine transferred must be a few millimeters thick and no part touch the edge of the object glass. Then take, with a sterilized platinum wire, a drop from the rice-water discharges, inoculate the gelatine by making a few strokes upon it of not sufficient depth to reach the glass below the gelatine. The longer the object glass, the more strokes we shall be able to make, and the easier it will be to recognize and differentiate the colonies of bacteria which will grow there. After the gelatine has been inoculated, the plate of glass must be put under a bell glass, whose walls should be dampened inside with distilled water. Eighteen hours afterward we shall observe the result of the inoculation by the growth of the different species of bacilli. In case of Asiatic cholera, we should observe in the early stage of the growth a small, pale drop, not of a perfectly circular appearance, such as most colonies of bacteria present, but with irregular rough edges. From the very beginning of its growth it has a granulated appearance. A few hours after the first appearance of these drops upon the gelatine, the granulations appear more marked and look like a mass of irregularly-shaped, highly-refractive granules, which Koch compares to a little pile of small pieces of glass. Within twenty-four hours the gelatine becomes fluid in the immediate neighborhood of the colony, and the latter sinks into the gelatine. A small funnel-shaped impression is formed, in the midst of which the colony may be seen as a small whitish spot. For the purpose of making these observations, the glass plate must be placed under a microscope with a power of about eighty diameters. In order to make these cultivations, a temperature not lower than 68° F. is necessary.

In case we have to deal with a cultivation of the bacilli of cholera nostras, we shall find discs of a regular, even shape, and within thirty hours a funnel one centimeter in diameter will have formed, which in two or three days will have widened out to such an extent that the whole of the gelatine will have flowed off from the object glass,

Before we have completed these observations, however, it will be necessary to have done something for the relief of the patient. The degree of vigor with which treatment is inaugurated must depend upon the progress which the disease has already made. The first symptom of the disease is usually a very free movement of the bowels without pain. The patient believes that he never felt better in his life. In an hour or two there is another copious stool, still without pain. Perhaps there is another, then nausea if felt; soon vomiting ensues, followed by more stools, which assume the characteristic rice-water appearance, due to the large quantity of exfoliated epithelium. Cramps supervene, cyanosis, shallow respiration, anuria and all the concomitant symptoms of collapse. The attack may be preceded by an acute indigestion, in which case I suppose there would be the pain which usually accompanies such a condition. One of the diagnostic points, however, is the absence of pain up to the danger line. The absence of nausea is also stated to be characteristic; the vomiting being of a regurgitant character without the usual nausea.

The treatment should always be prompt

and vigorous. Astringents and opium are contra-indicated, except for the relief of pain. If preceded by indigestion, castor oil or magnesium sulphate is advised to remove the undigested food. Otherwise no purgative should be given. The popular idea at present seems to consist chiefly in stimulation and asepsis. The methods advanced for obtaining the desired asepsis are very numerous. Salol is highly recommended by Dr. Hare and others. As salol is not dissolved in the stomach, but in the duodenum is decomposed into its component parts, phenol and salicylic acid, its use is certainly based on rational grounds.

Sulphuric acid is antagonistic to the coma bacillus, and is also astringent. Dr. Todd advocates the free use of hot water, acidulated with sulphuric acid, for the relief of the intense thirst. It seems a more rational method than the administration of ice and iced drinks.

Dr. Daland informs us that in the treatment of the cases in Swinburne Island Hospital the patient was first immersed in hot water, then given a subcutaneous injection of hot sterilized water, containing six-tenths per cent. of sodium chloride and one per cent. brandy. This procedure is known by the name of hypodermoclysis. The first injection in an adult may be one or two quarts. In but one of the eleven cases did an abscess form. In favorable cases absorption took place in thirty to forty-five minutes, but in those where collapse approached death, as long as four hours may be required. The rate of absorption is therefore of great prognostic importance. The best position for these subcutaneous injections is in the flanks, in the region of the floating ribs, in the median axillary line, although it may be administered in the gluteal region or the inner aspect of the thigh. Ordinarily a hypodermoclysis may be repeated every two hours, and in severe cases it may be well to inject one quart in each flank, repeating the operation so soon as it has been absorbed. The solution should have a temperature of about 104° F. A good working rule is as follows: For an adult, two pints; for adolescent, one pint; for an infant, half a pint.

An enteroclysis, consisting of one to two per cent. solution of tannic acid, having a temperature of 113° F., was also employed. For an adult, two quarts may be given; for an adolescent, one quart. The solution should be introduced very slowly, taking not less than ten minutes time. By this careful administration it is claimed that in a majority of cases the fluid will pass the ileocæcal valve.

Washing out the stomach with a solution of tannic acid is also advised.

Camphor and ether are advised as stimulants; also deep hypodermatic injections of whisky.

In case of extreme collapse, intravenous injections of the normal salt solution is advised. Dr. Pilchner gives a very full description of the technique of this operation in the *Brooklyn Medical Journal* of October, 1892.

In the same journal Dr. Dawbarn advocates transfusion into the femoral artery in extreme cases.

The subject of Asiatic cholera is, however, altogether too broad to be treated fully within the limits of one short evening. I have attempted only to touch upon some of the leading points, hoping to elicit a discussion on a theme which now occupies such a prominent position in the current literature.

Non-Malignant Growths of the Nose.

Read before the N. E. K. M. & P. Association at Netawaka, December 12, 1892.

BY

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Non-malignant tumors of the nasal cavities are the class of tumors we are most frequently called upon to deal with.

The importance of our interference in these cases is directly dependent upon the conditions in which they are found and the conditions produced by them in the nasal cavity or accessories.

If there be at the time of observation no

direct interference with the function of the nose, the probability of future disturbance should be carefully considered.

The nature of the growth, its location with reference to the more important structure of the nose, and its tendency to rapid development are points which should be carefully investigated.

It is usually safe and in most instances advisable to remove any neoplasm occurring in the nasal cavity, whether there be interference with the function or not, if it be not a malignant growth. It is, however, not always an easy matter to decide as to the character of these tumors.

Frequently a growth in the nose, which has every appearance of being benign, will recur after removal and present a well-marked type of malignancy, and in some such cases, noted pathologists, after careful microscopical examinations, have pronounced tumors benign, which upon recurrence they have by a similar examination found to be malignant.

Sometimes also a growth, which has the gross appearance of a malignant tumor, and which presents other conditions tending to confirm such opinion, will, upon microscopical examination, show none of the appearances of such a tumor, until after its removal and a recurrence.

So we may say that while a microscopical examination should always be made where there is any question, we must not rely altogether upon the results; but where the history and appearance indicate a malignant character, even though contradicted by the microscopical appearance, we should rather base our opinion upon these evidences. The question as to the removal of malignant growths we have no desire to discuss in this paper.

While there are quite a variety of non-malignant tumors of the nose, they are all somewhat closely allied, and so far as interference with the function of the nose is concerned, they all produce like results. The conditions which most seriously demand operative interference and which are produced alike by all forms of neoplasms which tend to increase in size are obstruction to the nasal passage and interference with drainage, or occlusion of one of the accessory sinuses and pressure upon the adjacent structures.

These are the conditions we will be called upon to relieve and which render the existence of such a growth of any serious consequence.

We also find that disturbance of the function of other organs, usually associated with catarrh and other diseases of the nasal cavities, are directly the result of one of the conditions just stated. Thus we find disease of the middle ear, which may be directly dependent upon an occluded nostril; or we may find frontal headache, pain and weakness of the eyes, which is directly due to an occlusion of the frontal sinuses in the one case, and to pressure by an enlarged middle turbinate or tumor upon the nerve filiment distributed over the upper portion of the septum in the other.

Probably the most common tumor seen in the nose is that which we most readily recognize as an hypertrophied turbinate. While this is simply a hyperplascia of connective tissue and has not the characteristics of a new growth, it may nevertheless properly come in the category of tumors, in that its results are essentially the same. A hypertrophy of the lower turbinate usually presents, upon inspection, a rounded, reddish mass lying along the outer and lower portion of the cavity, partially or completely obstructing the passage. This mass is usually of a dark red color and covered with a mucous or muco-purulent discharge.

We may be deceived as to the real amount of hypertrophy existing by the size of the tumor. The venous sinuses, which form an important part of the turbinate bodies, are under the vaso-motor control, and their relaxation and the consequent effusion of serum into the tissues most readily occurs upon slight irritation, so that much of the size of the tumor may be dependent upon this effusion, and the amount of hypertrophy be in reality small. In order that we may ascertain the true condition, the use of cocaine is of inestimable value. After an ap-

plication of cocaine, there is contraction of the tissues and the swelling disappears.

Now it is important that we should remove these growths from the nasal cavities for two reasons: First, because they do now or will at some future time obstruct the passage and prevent drainage; second, because the true function of the turbinates, *i. e.*, supplying moisture for the inspired air, is interfered with by the overplus of connective tissue. If there is only a small amount of hypertrophy, the tumor may be reduced and the vessels made to regain their normal tone, thereby restoring the normal function of the turbinates. This may be done by a careful cauterization, first applying cocaine till the swelling is reduced, then cauterizing the surface. By this means a cicatrix is produced which will contract the vessels and maintain that condition for some time. This should be repeated at intervals of ten days or two weeks until the parts are restored to their normal size and condition.

When we find a large amount of hypertrophied tissue and when there is considerable obstruction, even after thoroughly cocainizing, it will be advisable to remove a portion of the growth. This is best done with the cold wire or scalpel.

Next in frequency to the hypertrophied turbinates comes the polypus, which is a true neoplasm and may be classed with the myxoma. They are not malignant, though degeneration may occur, and in some instances they appear to take on a sarcomatous degeneration, and Bosworth is of the opinion that a carcinomatous condition may also occur. From degeneration of their interior they may become cystic and will then consist of a cyst wall or membranous envelope and fluid or partially fluid contents.

A polypus is usually attached by a single narrow pedicle, but occasionally we may find more than one attachment.

Polypi most frequently spring from the middle turbinate or near to it.

Zukerkandl found as a result of an examination of thirty cases that in fifteen the polypus was attached to the hiatus semilunaris, which is situated just beneath the middle turbinate, and only in three cases was the attachment upon the septum.

The development of these growths varies very much both in rapidity and extent. They occasionally reach a very large size, sometimes hanging low in the pharynx or protruding from the anterior nares. When they become very large and pendant, we usually find the pedicle smaller and much drawn out.

A polypus is usually very easily diagnosed. They are usually smooth, round and have a bluish gray cast, much lighter in color than the surrounding tissue and very different in appearance. It presents a light, glistening appearance, which Bosworth likens to the pulp of a grape.

In order that these points be brought out clearly, a strong light should be used and the parts well cocainized. When the tumors are small, they are more difficult to diagnose, being frequently well supplied with blood-vessels and more nearly resembling the normal tissue, but with the use of cocaine you will have no trouble in bringing out the characteristic color and tumified appearance. It is very important that polypi be removed as soon as they are observed for several reasons. When small, they are more easily removed; the polypi-breeding tissue is not extensive and they are less likely to return.

A polyp is most easily removed with a snare, and in some instances the ingenuity of the operator will be greatly taxed in his efforts to surround them. When small, they are easily grasped, and are cut off smoothly. It is important that as little mutilation of the tissues as possible should occur and especially if there is a tendency to recur as it is generally supposed that this may have some influence in producing a malignant degeneration. Sometimes it will be more convenient to tear away the tumor with forceps, but I think it much preferable, where it is possible to do so, to use the snare or knife, leaving as smooth a stump as possible, which should then be thoroughly cauterized, so that all of the diseased tissue may be destroyed. If you have not a cautery at hand, the point of attachment should be touched

freely with tr. iodine. By this method the chances for a recurrence are very much diminished.

Hypertrophies of the middle turbinate usually occur at the extremities of that body and as the tissue is there loose, if there be considerable effusion, we will frequently find a tendency to become pendant, and to form by the force of gravity a pedicle, and very frequently closely resemble a true polypus. The point of attachment, the effect of cocaine upon the growth and the difference in color will usually enable us to distinguish between the two.

Growths which involve the middle turbinate or occur in its immediate neighborhood seem to produce more serious and troublesome results than those of any other portion of the nose. The middle turbinate bone is probably a portion of the ethmoid; at any rate its air chamber frequently communicates with the ethmoid cells. This being the case, we may not be surprised at finding a condition developing here which is essentially that of a bony cyst. It is to this kind of tumor that I particularly wish to call your attention in this paper. These cysts are often of quite rapid growth, and while the bony cyst wall may be very thin, it is very hard and of sufficient strength to make great pressure and to produce marked deflection of the septum before it. The pressure of the growth upon the septum and upon the sinus beneath are the causes of intense frontal pain and a neuralgia of the eyes. There is also frequently effusion about the eyes. I can probably best illustrate the conditions found and the character of the tumor by a short review of the following cases:

A year ago last August, Mr. F. H. W., banker, æt. about forty-five, on his way home from the mountains, where he had gone for relief from an attack of hay fever and asthma, called at my office for examination. He had had the attacks of hay fever for several years, but the asthma had been continuous for something more than a year. On examination of the nose, I found on the right side a large mass at the sight of the middle turbinate, which was nearly smooth, but very hard. The septum was pushed over before it, so that there was a marked deflection to the opposite side. At the point of contact with the septum the surface of the tumor was somewhat eroded and bled very freely. In this case there was not much frontal pain, though there was a marked fullness and stuffy feeling of the nose. After cocainizing, a part of the tumor was removed, breaking down the bony cyst wall, and the remaining portion thoroughly cauterized. The asthmatic condition was greatly relieved and remained so when last heard from about ten months ago.

Mr. E. W. P., a foreman in A. T. & S. F. lumber yard, aged about fifty, whom I had under observation for a chronic ulcerative pharyngitis, began to complain of frontal pain and pressure in the nose. On examination, I found on the left side a large, round mass, which seemed very firm, and was pressing upon the septum. There was also some weakness of the eyes. I succeeded in removing with the snare considerable hypertrophied tissue from the surface of the tumor, which gave temporary relief. In about two weeks he returned, complaining that the frontal pain had grown very much worse, so that he was unable to sleep, and his memory was greatly impaired. The eyes were very weak and painful, and there was a dark venous congestion in the tissues around them. I found now that the tumor had rapidly increased in size, and the septum was beginning to show the effects of the pressure. The tumor now was perfectly smooth, very hard, and the membrane covering it very thin. By repeated efforts and after breaking several wires, we finally succeeded, with a large-sized piano wire, in crushing the tumor and bringing away a portion of its wall, which was found to be slightly thicker than paper, but as hard as ivory. The walls of the cyst were then broken down with forceps and the surface allowed to heal, which it did very kindly. The pain was relieved at once, the walls contracted sufficiently to give plenty of room, and there has been no return of the trouble.

The points which struck me most forcibly

in these cases were the rapidity of the growth and the amount of pressure upon adjacent structures. The pain and nervous manifestations are very readily accounted for by the latter condition. My own observation has been that where there is much pain and where there is any reflex or nervous condition, which can be referred to a disease of the nose, it is usually found to be an enlarged middle turbinate or a growth involving the tissue in its immediate vicinity.

In all cases of hay fever I think we should examine the middle turbinates, and if there be enlargement or hyperæmia, they should be thoroughly cauterized; and if there be pressure, a part of the structure should be removed.

Scarlet Fever.

Read before the East Kansas Medical Society at Topeka, January 12, 1893.

By J. H. BROWN, M.D., Wetmore, Kansas.

Scarlet fever is one of the most intractable diseases of infancy and childhood. It comes on suddenly. The child has a chill or a succession of chilly sensations; the temperature rises to 102–105, while the pulse may be quickened beyond what the temperature would indicate. The skin is hot and dry, and the mucous membrane of the mouth and throat becomes injected, and thirst is troublesome. The tongue is covered with a gray coat, and the papillæ becomes swollen and prominent. In about twenty-four hours a rash appears; first upon the sides of the neck below the ear and extends over the shoulder and chest. It appears in small red spots, darker in the center and shading to the natural hue.

These spots extend and coalesce until the whole surface of the body and limbs is covered with a scarlet blush, darker at the initial point of the eruption and fading to the natural hue. In from two to four days the eruption reaches its height and gradually fades. The temperature continues to rise until the second or third day, the angina increases, the throat becomes painful, and sometimes ulcerations appear on the sides of the pharynx and tonsils. The mucous membrane of the nose becomes involved and sometimes pours out an acrid discharge that runs down over the sides of the face, producing excoriation of the skin. These symptoms continue from two to four days, when they gradually subside, and the child returns to its natural condition. In the early stages of the disease, delirium convulsions or coma may occur. These denote a severe form of the disease. Vomiting is quite frequent. J. Lewis Smith reported vomiting in 90 cases out of 117. It may not be severe and may only occur once or twice, or there may be merely nausea. If the vomiting is severe, it denotes a grave form of the disease. In most cases the skin is smooth, but sometimes the papillæ become sufficiently engorged to produce slight roughness.

In making a diagnosis of this disease, the following points should be considered:

The suddenness of the attack and the early appearance of the eruption; the great frequency of the pulse, the vomiting; character of the eruption, and the fact that it begins upon the sides of the neck and the infrequency of its occurrence on the face, and especially the white line around the mouth; the peculiar redness of the mouth and throat, and the prominence of the papillæ of the tongue, will aid in determining the disease.

As the eruption disappears, the stage of desquamation begins. The epidermis, as it is detached, presents a furfuraceous appearance. The thicker portions of the skin may exfoliate in large flakes. The writer once saw complete casts of both feet. This stage usually lasts from eight to fourteen days, but it may be prolonged to a month.

The poison of scarlet fever is supposed to be of microbic origin. It is very tenacious of life, living for at least two years. Sir Spencer Wells is said to be authority for the following example: In Yorkshire a number of scarlet fever patients had died and were buried in a country churchyard. In the course of time some of this ground became a

part of the garden of a rectory. The soil was digged up where these scarlet fever bodies had been laid thirty years before with the result of causing an outbreak of the fever in the neighborhood. It is contagious and infectious in all its stages, but is most easily contracted during the height of the fever. It may be transmitted by clothing or by means of the air, but it takes closer contact than other contagious diseases. It has been said that it is not contagious three feet away. S. H. Miller reports twenty-four cases of scarlet fever, caused by drinking milk which had become contaminated through the flannel cloths used to wash the cans.

These cloths had been left in the barn by a rag peddler.

I. M. Rotch mentions a case where the poison was carried in a letter, sent out from the scarlet fever sick-room during the stage of desquamation.

Prophylaxis in this disease is of prime importance when we consider the danger from it to life and health, and the fact that after maturity there is almost immunity from it. Patients should be isolated immediately and should not be allowed to mingle with other children until desquamation is fully accomplished. Nurses and attendants should be very careful to disinfect their hands and clothing before coming in contact with the well or diseased individuals. They should expose themselves freely to the open air. Their hands and head should be washed with a solution of carbolic acid and the clothes changed. Sick rooms should have an abundance of pure air, and the clothes of the patient should be washed in a three per cent. solution of carbolic acid. They may then be boiled with potash, soap or steamed. All surplus furniture and pictures should be removed from the sick-room.

I. M. Rotch gives the following directions: "If there be paper on the wall, it should be thoroughly scraped off and immediately burned. The floor is then to be wet with a five per cent. solution of carbolic acid, and then the ceiling, walls and woodwork are to be thoroughly rubbed with bread which Esmarch has shown to be the best method for removing infectious material from surfaces of this kind. The microorganisms adhere with great tenacity to the bread, which with any crumbs that may break off should be carefully gathered and burned, after which the room should be freely aired for several days.

In the treatment of scarlet fever attention must be directed toward temperature, skin, throat, the general condition of the patient and the various complications.

In mild cases, with a temperature under 102 or 103, nothing need be done to reduce the temperature, except an occasional sponging to keep the skin in good condition.

When the temperature rises higher, we should resort to some means to reduce it. I believe the cold-water treatment has more advocates than any other. Some prefer the wet pack, while others rely on the bath. I believe the method used by J. Lewis Smith to be the best in most cases. He says cloths rung out of ice water should be placed on the head and over the great vessels of the neck, at the sametime sponge the hands, arms and limbs with the cold lotion to which alcohol may be added. Antipyretics should be given with great caution, if given at all, as one of the dangers to be guarded against is heart failure.

Early and free use of stimulants is of prime importance and should be given in sufficient doses to produce constitutional effects. It, I believe, not only stimulates the heart's action, but also protects the system from the ravages of the disease. I would like to emphasize another point of treatment, and that is the early antiseptic treatment of the throat. I believe that if this was done carefully, much of the throat complication that gives so much trouble would be avoided.

Dr. W. Cheatham has called attention to the use of peroxide of hydrogen in these ceses. It should be used full strength or an equal part of listerine added to it. The throat should be thoroughly washed with this solution. The skin should be anointed with vaseline or cocoa butter. This procedure has a double object; it allays the in-

tense burning heat that patients usually experience, and reduces the temperature.

This should be kept up throughout the stage of desquamation, as it prevents the scales from becoming dry, when they drop off and become sources of danger by floating in the air or clinging to clothing or other articles.

Many remedies have been proposed for the treatment, but I shall only mention a few of the later ones. Vidal advocates the use of acetate of ammonia, which he gives in large doses, from 35 to 90 grains per day. He claims that if this is given at the onset of the disease it will cut it short. Barks and DeRosa reports great benefit derived from daily doses of one and one-half to four and three-fifth grains of salicylic acid. J. C. Wilson regards chloral as one of the sheet anchors in the treatment of this disease. He gives it in doses of one or two or more grains, according to the age.

Otitis should receive prompt attention, and we should remember that as long as there is a discharge from the ear, there is danger of infection. Cases have been reported where the disease was contracted from a discharge from the ear long after convalescence. Nephritis is one of the principal complications in scarlet fever and may become a grave symptom in otherwise mild cases. It is often caused by exposure to drafts of air during the stage of convalescence. People should be cautioned in every case, however mild, about allowing children convalescing from the disease, to run out into cold drafts or go out when the weather is cold and raw. The further discussion of the subject I leave to the society.

PHENOCOL hydrochloride is one of the latest antipyretics. It is much safer than antipyrin or antifebrin, and has no undesirable secondary effects. It is given in ten grain doses. Seventeen deaths are reported in Vienna as occurring from antipyrin in one winter. If that is true, we hail with delight a safer and more pleasant antipyretic.

Vertigo.

A Clinical Lecture, delivered in the Kansas Medical College, March 3, 1893,

BY

R. E. McVEY, M.D., Topeka,

PROFESSOR OF CLINICAL MEDICINE IN THE KANSAS MEDICAL COLLEGE.

Mrs. H. W., æt. forty, music teacher for twenty-five years, who previous to this time had vigorous health without any nervous manifestations. Good family history. She pursued her work as a teacher continuously, using various makes and grades of pianos. The first symptom of a nervous disturbance was occasioned by the low bass notes of the instrument, which produced a feeling of dizziness; later developed into a pain in the back of the head and neck.

Up to this time instrumental music had charms for her. As the irritation in the back of the head and neck progressed, the nervous system seemed easily exhausted, and instead of being a pleasure the sound of the instrument became an intolerable affliction, and she became despondent. The symptoms grew worse and worse. Her powers of locomotion became uncertain, and in going from place to place, she has a horrible feeling that she should go faster and faster with a tendency of going to the right. After teaching, counting time and hearing the instrument all day, there is more or less mental confusion. If she place her feet together and close her eyes, she is giddy. At night on going to sleep as soon as the light is extinguished, she feels as though she is smothering, but on the lamp being relighted, the smothered feeling disappears. The disturbance of equilibrium became so marked that she was compelled to give up her business of teaching.

Locomotion is so uncertain that she has to use a cane in walking to keep from falling. She has, in going from place to place, to locate an object and go straight to it. She dare not look to the right nor left for fear of falling. She cannot recognize a friend or look at a window, but has to go straight to her object.

On several occasions she did fall forwards; finally it became unsafe for her to be on the street alone. The feeling, as near as can be described (to use her language), is that of walking on the deck of a vessel in a storm. During this time there is numbness in the feet. Upon pressing the finger into the right ear, it produces a paroxysm of coughing.

She fancies that hearing is not as acute in the right ear as in the left, but the tick of a watch is easily recognized in both ears, which proves that hearing is normal in both ears. Examination of the ears shows catarrhal trouble of the aural canals; dry scaly condition with greyish-white appearance of the trunk. The nose shows a swollen condition of the turbinates, making pressure on the septum.

Examination of the eyes shows weakness of the internal recti—lack of sufficient power of convergence. On following an object around, the periphery of the visual field, with one eye closed, a sensation of dizziness is experienced. There is a lack of co-ordination of the ocular muscles.

It is probably impossible to explain all the symptoms presented in this peculiar case. The pathology of vertigo, I think, is unknown. The exact center of equilibrium is also unknown, but from the literature upon the subject, the cerebellum is the chief center of muscular co-ordination. The irritation of a sensory nerve in any portion of the body may by reflex action pass to the cerebellum, produce a loss of muscular co-ordination.

Vertigoes are divided into aural, ocular and stomachal.

The most frequent form of vertigo is the aural.

Vertigo may be slight or profound.

In most forms of vertigo, consciousness is retained; but in the epileptic form, consciousness is usually lost.

As there is loss of tone in the ocular muscles and also hyperæsthesia in the hearing spheres, it is difficult to say whether disturbance in the movements of the eyes is the cause of the vertigo or from the altered molecular change in the labyrinth or hearing spheres from the hyperæsthesia, which is evidenced by the irritation produced by the bass notes of the instrument. But as the examination does not find sufficient cause in the auditory structure to produce the vertigo, it is probably ocular, produced by loss of tone in the general sensory system.

Vertigo occurs in astigmatism, hypermetropia, paralysis of the ocular muscles. It is also produced by eye-strain.

Hare says: "Ocular vertigo is usually due to weakness or paralysis of an ocular muscle, causing an error of appreciation as to the real relation of the body to seen objects."

"The erroneous projection of the field of vision causes a discord between this and other guiding sensations, and one effect of this discord is the sensation that we call vertigo or dizziness."—GOWER.

Chamberlain says he has also seen cases of "ocular vertigo in which the only apparent cause was sensitiveness and irritability of the retina."

Brown-Sequard has concluded that "irritation of every sensory nerve may by reflex action produce convulsions, vertigo and other symptoms of encephalic disturbances."

The basis of the special senses is common sensibility, and the special senses seem to be evolved from the general sense.

From the numbness of the feet in this case, it seems probable that there is an impairment of the general sensibility by a depraved condition of the blood. The sensory cells are dependent upon the blood for their nutrition. It is the blood that keeps them alive and makes them feel.

Muscular action is the reaction from sensibility. In this case it is probably not the special sense of sight, but the general sensibility from which the muscles receive their tone; so that in the eye in this case there is only a loss of general sensibility in the ocular muscles.

When a sensory nerve is impaired in its function, the corresponding motor nerve is also impaired in the same ratio.

In order to account for the pain in the back of the head and neck, as set forth, it is probably a reflexive pain. It may have

been from the eyes or from the uterus. It probably is a hyperæsthesia of the occipital nerve, and was an accompaniment of a general anæmia, which had been set up from overwork and faulty nutrition.

That the fault is in the general sensibility is also evident from the smothered feeling which takes place when the light is extinguished.

That the senses are all closely related is established by the law of compensation, as seen in locomotor ataxia.

In locomotor ataxia the general sense is impaired. The equilibrium is maintained by the special sense of sight. If the patient shuts his eyes, he is in danger of falling. There seems to be a similar condition in this case. When in the dark there is a sense of suffocation, showing that the sense of sight has its power of correcting a deficiency in the function of general sensibility. This also may be seen in the loss of sight, which is in a measure compensated for through the tactile sense. It this case we have impairment of the general sense, which is corrected by the sense of sight. And when the sense of sight is shut off by closing the eyes, the person feels as though she were becoming unconscious.

The feeling of being on a ship in a storm is best accounted for by the loss of equilibrium in the sensory cells by impaired circulation of blood through the brain. Every sensory cell has an equilibrium of its own.

The prognosis in this case is good. If the theory of a mal-nutrition is the etiological factor behind the nervous disturbance and overwork.

TREATMENT.

First, improve general nutrition by nutritious food. For medicine to restore the condition of the blood, take—

Pulverized ferri sulph.....
Potass. carb. puræ.....aa...℥ ii
Tragacanth .....q. s....m
Pills No. 30.
Sig.: One pill three times per day.
For the vertigo:
Bromide of soda.....℥ v
Fl. ext. valerian.....℥ iv
Sig.: One teaspoonful three times a day in water.

Prescription third: Fl. ext. guarana, a teaspoonful three times a day when indicated.

Through the effect of the pills and guarana, the patient is making a constant improvement.

Rest from the work is also required.

"In the vertigo observed among the overworked and underfed, give syrup hypophosphites, wine and a full nutritious diet." —LOOMIS.

In every case of vertigo the cause should be sought for and removed if possible. In this case the sensory centers are exhausted and irritable from the long-continued labor as a music teacher.

FOR bronchial troubles in children, where the secretions are excessive:

℞
Wine of ipecac.....℥ ss
Ex. hyoscyami, fl.....gtts. xx
Syr. prun. virg. ad...q. s..℥ ii
M. Sig.: Half to a teaspoonful every two to four hours, according to the indications.

Where the secretions are scanty and tough:

℞
Ammon. muriat .....℥ i
Aquæ dest .....℥ iv
M. Sig.: Teaspoonful every two hours.

IN many cases of irregular action of the heart the cause is due to loss of tone in the muscular tissue of the organ. Such cases are benefitted by the following:

℞
Tinctura strophanthi....gtts. iii to v
three times a day.

THE annual meeting of the American Medical Association will be held in Milwaukee, June 6, 7, 8 and 9, 1893.

SOCIETY PROCEEDINGS.

The Topeka Academy of Medicine and Surgery.

The Topeka Academy of Medicine and Surgery met in A. O. U. W. hall, March 13, 1893, at 8 o'clock.

Dr. Sheldon in the chair.

Present: Drs. Rodgers, Lewis, Pelton, Ward, Stewart, McCrea, Barnes, Magee, Minney, Gilbert, McVey and Sheldon.

Visitors: Lewis, Simonton, Battey, Gundrie, Church, Buckmaster, Conger, Powell and McClintock.

Resolution of Dr. O'Brien to amend by-laws so as to make initiation fee $5 was amended by making fee $2, and so passed.

Paper by Dr. Pelton on "Heredity."

DISCUSSION.

Dr. Minney.—"We distinguish between heredity and a tendency. It is a very fine point and I prefer to say heredity. I know this is the case with mental traits. In a child I have recognized the mental trait and actions of the mother. We also note there are whole families dying of tuberculosis. This, I think, with all due respect to the opinions advanced, is heredity. In regard to supervision of school-rooms, as suggested by the doctor, I think it a wise plan. It is a matter of vital importance, and I think we ought to take some action in the matter. There is no doubt there are cases where young minds are inflamed and overtaxed."

Dr. Magee.—"Heredity is an interesting subject. The doctor has made several points clear to me. My teacher in obstetrics took the position that it is hardly possible the mother could have much influence over the growth of the child; that the ovum could not carry any other cell, and when it was once deposited, could not be affected. The bloodvessels only lying side by side, not anastomosing, and the nourishment being taken by osmosis. We can trace tuberculosis from father to child, but we cannot explain it. It may be a taint or a weakened cell."

Dr. Rodgers.—"I am glad to see this subject come up. There is a positive assertion made on one side which does not correspond with what we see in heredity. Our recent knowledge of microbes and bacilli contradict these ideas of tubercular heredity. Infection and heredity come close together, and it is difficult to decide. There is a division of opinion on the subject of heredity. By in-breeding certain deformities may be produced, such as absence of a tail or muscle."

Dr. Lewis.—"I believe in heredity to a certain extent. I believe in inherited traits of character, etc., but do not believe in the heredity of tuberculosis. I believe more firmly in its infection."

Dr. Conger.—"I believe as Dr. Pelton says, that the heredity of tuberculosis is the transmission of the tendency which a certain environment will develop."

Dr. Powell.—"There is little difference of opinion as to a transmission of a tendency to disease. A weak parent produces a weak child. I believe more in contagion than heredity. The Indians, when wild and in the air, seldom have tuberculosis; when confined in schools, they rapidly succumb. There is no case of heredity of tuberculosis proven."

Dr. Lewis.—"The paper interests us both from a scientific standpoint and from the influence and success of our schools. We know children are born with inherited tendencies, a weakened condition which furnishes soil for infection. Whether we have the germ or not, there is the tendency. I believe the system practiced in our schools tends to debilitate and incapacitate the child. Physicians should look after the schools."

Dr. Ward.—"I believe in heredity, but I do not believe we are or ever will be able to draw the line between a tendency and heredity of disease. I believe a child born of a consumptive mother more likely to be affected than where father is consumptive. Boards of education are outside the fraternity, and do not understand the laws of health. It seems we ought to be able to

take some action in this matter. I think the idea suggested by Dr. Magee that the blood of the mother does not affect the child is an erroneous one."

Dr. Sheldon.—"I am a firm believer in heredity. I do not believe that diseases following families through life are hereditary *per se*, but there is a want of resistance. Persons born of unhealthy parents inherit a want of resistance to certain diseases which their parents had. We see this developed particularly in tuberculosis, and in mental and physical characteristics."

Dr. Minney.—"I believe we all agree about these tendencies or predispositions, only I say let us call it heredity."

Dr. Pelton.—"I am thankful for the liberal discussion. I make a great distinction between heredity and embryology. Heredity is closely allied to biology. It does not have reference to contamination or infection of life. Physical or mental impressions or intra-uterine infections are not heredity. A mother may infect a child with tuberculosis, but this is not heredity."

Paper received.

Dr. Minney, Rodgers and Powell were appointed a committee to draft resolutions in accordance with views expressed by Dr. Pelton in regard to the physicians' control of public schools.

Dr. Sheldon made a report of a case of supra-pubic lithotomy.

Dr. Powell presented sections of the calculi microscopically, in which he had operated recently. "The perineal operation is one in which there is sure to be always a septic condition. You cannot have it antiseptic. In preparing your patient, the first thing to do is to first put the bladder and urine and all the surrounding parts in as nearly a healthy condition as possible. One week ago yesterday I operated, removing this stone from the bladder; first filling the rectum to push the bladder well forward. The ninth day has passed and the patient is doing well."

Dr. Powell said that the present calculus is phosphate of calcium alternating layers. "The nucleus is of the same material as the lamina. The microscope revealed amorphous calcium. Urine of this character gives a decided alkaline reaction. Urine of calculus patients contains mucus and crystals of oxalates."

Dr. McCrea asked what were the peculiar characteristics that demanded an operation in this case.

Dr. Rodgers.—"Would like to know where the stone was located. Thought the statistics showed an equal death rate in the perineal and supra-pubic operations."

Dr. Lewis thought the supra-pubic operation the best and least liable to disaster.

Dr. McClintock's objections to perineal operation: "First, followed by stricture, the wound becomes infected. You cannot keep the wound clean, and there is ulceration and loss of tissue. In supra-pubic cystotomy I am afraid to raise the bladder in the old men. Why not put the patients in a reclining position, with heels up; the bladder will then ascend into the abdomen."

Dr. Ward thinks the abdominal wound should not be closed, but left open until you are sure that the bladder has united.

Dr. Lindsay thought the operation done successfully.

Dr. Sheldon said the condition of the bladder in this case was not in a septic condition. Thought the stitching of the bladder to the abdominal wall is not good practice, as it makes an attachment not desirable.

On motion of Dr. McClintock, a committee of five were appointed to map a plan of action to report on cholera prevention to an adjourned meeting at Dr. Minney's office.

The following committee was appointed: Drs. Schenck, Bradley, O'Brien, Magee, and Conger.

Adjourned to meet Wednesday evening, March 15, to hear report of committee, which committee is to confer with the board of health in regard to the best method of preventing the cholera from infecting our city.

W. E. McVEY, M.D.,
Secretary.

ADJOURNED MEETING.

The Topeka Academy of Medicine and Surgery met in Drs. Minney & Magee's

office on Wednesday evening, March 15, 1893, to receive the report of special committee on cholera, in response to the request of Mayor Cofran.

The following members were present: Drs. Sheldon, Barnes, McCrea, Alkire, O'Brien, Lewis, McGuire, Miner, Bradley, McClintock, Rodgers, Stewart, Colcord, Conger, Schenck, Magee, Warner, P. M. Lewis of Lecomptom, Capt. Rowley of the *Capital* and Chas. Blakesley of the *Journal*.

The committee, composed of Drs. O'Brien, Schenck, Magee, Conger and Bradley, made the following report:

To Hon. R. S. Cofran, Mayor City of Topeka.—DEAR SIR: Your letter shows a most commendable interest in the health of the city you have so long and faithfully served as the chief executive, and we cheerfully give you an outline of what is known of the prevention of cholera.

The subject is as broad as it is important. Within the bounds of our letter we cannot do more than glance at some of its more salient points.

1. Asiatic or malignant cholera is an infectious septic disease, caused by a specific poison, originating *de novo* only in certain districts in Hindoostan.

2. It is propagated in the intestinal canal of human beings, and only communicable through its ejections and dejections.

3. If kept moist, its vitality is self-limited; if dried, its vital force is of indefinite duration, and in this state it may be carried indefinite distances; and in a warm alkaline medium may develop all its power and reproduce the epidemic wherever developed.

4. Knowing whence the poison comes and how it is disseminated, we know it is possible to quarantine against it, and to corral it or to destroy or modify it if admitted.

5. It may be carried in the person of one who has been exposed to the contagion or infection, or upon the clothes, bedding or other articles with which it has come in contact.

6. Its period of incubation in the person is from one to three days; its period of active development and progress from a few hours to four days, and is manifested by the ordinary symptoms of the disease and by the presence of numerous bacilli.

7. Every country and community should protect itself against the ingress of the disease by quarantining against persons and goods coming from places where the disease is known to exist, and thoroughly disinfecting all persons and goods coming from suspected points.

As cholera has never visited western Europe without crossing the ocean and being admitted through some American port, and as during the next season there will be superadded to the ordinary demands of travel and commerce those of the great Columbian exposition, the great question with every city, village, hamlet and home in America is what can be done to prevent its admission and to modify its virulence.

1. All railroad cars and all boats carrying passengers should have the receptacle in their water closets made water-tight, and have placed in them some solution that will thoroughly disinfect all discharges, which should only be emptied at points where they can do no harm.

2. There should be a commodious and well-appointed hospital building in some isolated and healthful location to which the first case appearing in the city should be promptly conveyed, as well as every subsequent case, unless there are proper facilities for isolation, proper sanitation and treatment at their homes.

3. All cases should be traced back through their incubative stage, and all persons and articles they may have contaminated should be disinfected.

4. Whatever its relation to the development and spread of cholera, it is well known that its virulence lies largely in the unsanitary condition of the community it invades.

5. To secure proper protection there should be instituted at once house to house inspection by intelligent scientific sanitarians. All sewer connections should be examined, and all privies or water-closets in sewer districts should have proper connection with the sewer. All privies, stables, cattle-pens, chicken-coops, etc., should be thoroughly cleansed and kept clean and aseptic; and all

pig-sties should be removed beyond the corporate limits. Damp and dirty cellars should be properly drained, cleaned and ventilated; all cess-pools should be drained and filled with clean earth, and all organic accumulations should be burned or buried where they can do no harm. All water supplies should be most carefully examined. If wells or cisterns are so located that they may receive infectious drainage, they should be condemned. The ground about the well and cistern should be raised so as to prevent their receiving surface water. All natural drainage should be opened and kept open, and all pools should be drained and filled with clean earth. Privies not connected with the sewer should be furnished with water-proof vaults, made of a box, tarred within and without, of vitrified brick laid in cement; or, what is yet better, they should be supplied with the Rochdale system, the dry earth or ash closet, or the "Eagle sanitary closet"; they should have in them a vessel containing a saturated solution of coperas, crude sulphate of iron, a pint of which should be poured into the box every day. They should be so located as to be easy of access, and should be emptied every week by the city authorities. It can be done much more cheaply by the corporation than by individuals, and it will never be done efficiently if left to individuals. The corporation can do no cleaning more important to the general public.

All streets and alleys should be kept free from refuse matter, and all undue vegetable growth cut and removed.

With thoroughly clean city and home, with pure water, filtered and boiled if suspected, with healthy food and pure air, with proper care in avoiding overeating, undereating and irregular eating, avoiding all intemperance and excesses, all that tends to vital depression and deterioration, and especially preventing, by the free use of acidulated drinks, an alkaline condition of the gastric secretions, with regular habits, avoidance of exposure, and properly clad, we may escape the most common predisposing cause of the disease—undue fear—and "laugh and grow fat."

If the disease gains admission, there should be a prompt report of each case and a severe penalty for every failure, from whatever cause.

In every case all discharges from the stomach and bowels should be properly disinfected and buried; all contaminated clothing of little value should be burned; all valuable clothing and all articles used in the sick-room should be put in a solution of bichloride of mercury; and spoons, drinking vessels, etc., should be boiled before they are used by other than the patient.

Lastly, if the city authorities do not leave to chance or to other boards what they should do and do promptly, if the plague comes it will be cheated of its accustomed harvest.

W. L. SCHENCK, M.D.,
M. O'BRIEN, M.D.,
R. S. MAGEE, M.D.,
CHAS. C. BRADLEY, M.D.,
F. H. CONGER, M.D.,
Committe.

On motion to adopt the report, the following discussion ensued:

Dr. O'Brien.—"The report is a good one, probably a little too lengthy. A summary would be better. All city authorities endeavor to be economic and cut down expenses, and while there is no cholera yet in America people are loath to do anything until it makes its appearance. House to house inspection is the best sanitary procedure. Insist on everybody connecting with the sewers and the public waterworks."

Dr. Magee.—"Our city physician, Dr. Bradley, is here with us. Would like to hear from him concerning the amount of work he is now having done as to cleaning up the city."

Dr. Bradley stated that since March 1st he had one man in each ward, and two wagons endeavoring to thoroughly clean up the city. He was trying, in a quiet way, to scour the city and not arouse to much animosity. Notices were being served thick and fast to residents to thoroughly clean alley, back yard and vault without delay, and to keep them clean.

Dr. Conger.—"Mayor should give more

power to the city physicians. A house to house inspection should be made. I move you, Mr. President, that we recommend that the mayor be instructed to enlarge the powers of the board of health."

Dr. McCrea.—"Dessication is the best means of destroying the germ. The period of incubation is from ten days to two weeks. Should not be in too great a hurry to allow exposed persons to escape quarantine. A most rigid inspection should be made of the water supply—all wells should be filled and people compelled to use city water."

Dr. Colcord.—"The trains are liable to spread the disease. A rigid quarantine should be observed. Only lately an outbreak of a contagious disease occurred in Michigan from unsuspected baggage. A brief resume of important hints relating to sanitation should be sent to the mayor.

Dr. Stewart thought that the resolutions presented were specific, but a few modifications should be made. Thought that house to house visitation should be made; all premises in the city should be visited and that the board of health now had due power to make such investigations.

Dr. Warner thought that we should adopt the report just as it is and afterwards some other specific rules made. Put them in the shape of don'ts, don't do this, etc.

Dr. O'Brien thought the mayor just wanted to know what he should do to improve the sanitary condition of the city; seek to give the board of health the power that naturally belongs to it. Thought that practically there has nothing been done. Thought that we need not be so specific at the present time. "We should recommend to the mayor to increase the sanitary condition of the city. That the teams, which are now doing practically nothing, be put to work in the alleys."

Dr. Schenck had thought of giving the mayor such information as to the nature of the disease, and how it might be controlled. Recommended Surgeon General Woodward's rules. Thought sulphate of iron the cheapest and most applicable disinfectant and deoderant. Explained in detail what is set forth in the letter to the mayor, and insisted that the work be done by the corporation rather than by the individual. Individual disinfection is not successful. You cannot fix positively the extent of surface liable to contaminate a well. Usually a well drains to a distance four times its depth, but this rule varies."

Dr. McGuire.—"After the mayor has read that, what can he adopt?" Thought the report a good one, but there are many things that cannot be carried out. Thought the health of the city now good, and that the sanitary officers were doing all they could with the force at hand. Spoke of the board trying to get a flushing cart to flush the dead end of the sewers. The great question is, what practical suggestions can be made. Thought the ordinances defective in giving the board power. They do not have judiciary power.

Dr. Barnes spoke of the necessity of sunshine and fresh air.

Dr. McClintock thought the health boards had unlimited authority. "The laws which they make are superior to all laws, and have been so reported on by the supreme court. The health board does not have to take the opinions of the city attorney. When I was president of the board I took the most stern measures and was supported in my actions."

Dr. McGuire agreed that when the necessity was urgent the board should be supported.

The report as amended was unanimously approved.

Dr. O'Brien moved that we recommend to the mayor that the sanitary force be increased to twelve men, and that six carts be secured to remove refuse matter. Carried.

Dr. O'Brien made the statement that the U. S. marine hospital service had power to give rules for the guidance of the city authorities. Also that the late legislature appropriated $10,000 for use in case of cholera epidemic.

Adjorned.

D. F. RODGERS, M.D.,
Secretary pro tem.

STATE Medical Society meets May 10th.

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TOPEKA, KANSAS, APRIL, 1893.

Signs of Death.*

The absence of pulse in a superficial artery is not reliable. The absence of pulse may occur in shock, collapse, cholera, etc.

Not only the entire cessation, but the continuous cessation of the heart must be determined, and the whole chest must be examined, for the position of the heart, as well as its sounds, may be abnormal. The examination in cases of doubt should be continued for a period of two hours, at intervals of ten minutes. Children have often been restored where there was apparently no heart action for half an hour after birth.

It is said that the marmot, whose pulse ranges from 80 to 90 per minute, during hybernation sinks to 8 or 9 per minute.

There may be a voluntary suspension of the heart's action; it is rare, but has been reported. Auscultation and palpation are the most reliable means of detecting the absence of life. There are other methods worthy of consideration.

The finger or lobe of the ear, bound around tightly with a ligature and the part beyond the constriction will, if the person be living, become red, and finally the part will assume a bluish color. At the spot where the ligature was around the part, a white ring becomes visible. In death these changes do not take place.

When life is extinct for some hours, cupping and scarifying brings no blood.

During life, if a clean, bright needle be thrust into the muscles, it soon rusts (oxidizes); such is not the case in death.

As a rule, in death the arteries are pale or yellowish, and empty of blood, while during life the vessel pulsates and has the color of the surrounding tissue.

An ammonia solution, injected under the skin, produces a port wine congestion in the surrounding parts if life is present, but not so some hours after death.

It is supposed to be impossible to restore vitality after the heart has ceased beating for thirty minutes.

The entire and continuous cessation of respiration soon proves fatal. Three and one-half minutes is the maximum length of time the breath can be held. It is impossible to commit suicide by holding one's breath.

TESTS FOR DETERMINING THE CESSATION OF RESPIRATION.

By holding a looking-glass over the mouth and nose. There is always more or less moisture in the breath, and if there is the merest trace it will be rendered perceptible by condensing on the glass and dulling the mirror. It is a more positive proof of life than the absence of life. The mirror placed over the mouth and nose of animals in a state of hybernation is not dulled.

By suspending a feather or other light body near the mouth or nose. The absence of any movements of the feather may be regarded as indicative of the absence of breathing.

By standing a glass of water or mercury on the chest walls the faintest respiration

* Wood's Legal Medicine.

will be indicated by the rippling on the surface of the water or by the movement of the reflected image (candle frame) from the surface of the mercury.

Kansas Medical College.

The commencement exercises of the Kansas Medical College were held in Library Hall, Tuesday evening, March 21, 1893.

Dr. M. B. Ward was master of ceremonies. He gave a brief synopsis of the organization and work done by the school and of the class of 1893.

Rev. S. B. Alderson, D.D., pastor of the First Presbyterian Church, invoked the divine blessing.

Rev. W. A. Quayle, D.D., president of Baldwin University, delivered the address of the evening. It was a masterly one, delivered extemporaneously. He made the point that the practice of medicine marked the advance of civilization, and proved it to the satisfaction of the physicians present, and the audience said amen. There ought to be more such men in the world as President Quayle.

Dr. W. S. Lindsay addressed the graduating class. The address was full of thought and timely.

In the absence of United States Senator John Martin, president of the board of trustees, Hon. J. S. Collins, vice-president, conferred the degrees.

Prof. Craven's ladies' quartette furnished the music of the evening.

The degree of Medicine Doctor was conferred upon F. H. Battey, of Kidderville, Kas.; John A. Dillon, of Osborne, Kas.; J. M. Frankenburger, of Topeka, Kas.; W. H. Going, of Topeka, Kas.; Chas. W. Loomis, of Girard, Kas.; Clarence S. McClintock, of Topeka, Kas.; Stephen E. Smith, of McPherson, Kas.; E. P. Rodgers, of Topeka, Kas.; Agnes McKee Wallace, of Mo.; and Frances Storrs, of Topeka, Kas.

Library hall seats between four and six hundred persons. A large number of chairs were brought in and all the standing room occupied, and yet some persons had to leave for want of room. A larger audience room must be secured another year.

After the exercises at the hall, the faculty, graduates and class of '93 with their ladies adjourned to the Copeland Hotel, where the annual banquet was held. About one hundred and twenty plates were laid.

Dr. D. F. Rodgers was toastmaster of the evening. The following toasts were responded to:

"The Public and the Profession," by Hon. A. H. Horton, chief justice of Kansas.

"The New Doctors," by Dr. T. W. Peers.

"The Students," by Dr. J. A. Dillon, of the class of '93.

"Hygiea," by Dr. W. L. Schenck.

"The Faculty," by Dr. J. M. Frankenburger, of the class of '93.

"The Future of the Kansas Medical College," by Dr. J. E. Minney.

Introducing Judge Horton, Dr. Rodgers said: "In the early history of medicine the relationship existing between the public and the profession was not well defined. The sick were placed in public places and passers by were allowed to suggest treatment, (practice empiricism on them,) and after a time those who became experts were allowed to treat people. Now the relation existing between the public and the profession is clearly defined, and the Judge will make this plain to you."

Judge Horton then dextrously evaded the question and told some good stories.

Dr. T. W. Peers, in responding to his toast—"The New Doctors"—claimed that Solomon was a doctor and apothecary, for he (Solomon) said that dead flies caused the ointment to be septic (stink); and a merry heart is like a medicine, but a broken spirit drieth up the bones.

Drs. Dillon and Frankenburger, on the part of the class, responded in a humerous vein to the toasts "The Students" and "The Faculty."

Dr. Rodgers, on introducing Dr. Schenck, said the sons of Æsculapius were common, but the daughters were few. Two daughters of Æsculapius were in the class which graduated this evening, and in response to the toast "Hygiea" the well-known versatility

of Dr. Schenck will suggest to him words fitting for the occasion.

Dr. Schenck.—"The medical profession is not consistent. It says one thing and practices the opposite. Here we are between 1 and 2 o'clock A. M. gormandizing when we urge others to keep proper hours and practice regular habits.

"The next toast," said Dr. Rodgers, "is 'The Future of the Kansas Medical College.' The future is a line cast out in front of us, and every fisherman knows that a minnow is the proper bait to entice the fish. Dr. Minney will take you in."

Dr. Minney.—"'The Future of the Kansas Medical College.' I thought that dealing in futures was objectionable to the better class of our citizens and was an unsafe business. It must be admitted that the doctor is an exception to the rule, and is required to prognose or deal in futures continually. In a given case, before prognosing, it is the safer plan to get a history of the party or institution—its name, age, antecedents, etc. It was in the summer of 1889 a new star appeared in the zenith of the medical horizon. It was not the star of Bethlehem, but a kindred one—Æsculapius. It did not come from the east, but appeared *de novo*. It attracted but little attention at first. Not because of lack of lustre, or conspicuousness or beauty, but a lack of appreciation of its mission. There was room and a felt necessity for carrying out its purpose, but a lion was in the way. It required labor, money, study, grit and faith. Some persons looked beyond the obstruction in the way, and saw this handwriting on the wall: Duty, progress, development; and they said to others, 'Come, let us reason together.' 'Is it better,' said they, 'for us to cast aside opportunity, stand in the way of progress and duty, glide along in the old way, stultifying ourselves by inaction, and fail to develop within us all the powers of our being or to take hold of the obstruction, remove it, and by study and experimentation and teaching develop the man, and thus to better qualify ourselves for the practice of our profession? Be helpers to the utmost of our power in our chosen field.'

"Right prevailed. A new banner was secured and written upon, or, rather, within the very warp and woof of the cloth, an old name, but given a new meaning—'The Kansas Medical College.'

"The banner was unfurled to the breeze, and has been kissed and caressed by the gentle zephyrs of our beloved state ever since, and gives promise of a future life.

"Aside from the physicians, the board of trustees contains some of the best business men in our city—real estate, fire and life insurance men; lawyers, judges, statesmen and ministers of the gospel.

"The foundation of the school was properly laid and the preparatory work carefully done.

"A school of dissection was established and continued during the fall and winter of '89 and '90 to determine whether the hands of the proposed teachers had forgotten their cunning and if material could be obtained. The venture was successful. Good work was done and material was plentiful.

"Greater proof of ability and proficiency to teach was thought to be necessary, and a trial school was established in the spring of 1890. Each teacher was required to deliver from three to five lectures before the new faculty as a class. At first the lectures were read, but toward the end of the course the manuscripts, as a rule, were laid aside and the lecture given extempore. Not one of the eighteen or twenty teachers failed.

"The school proper began in September, 1890, and continued in session twenty-six weeks, having matriculated twenty-three students. None graduated. The second session continued the same length of time with twenty-eight matriculates. Two were graduated. A larger building was secured for the third session with increased facilities for teaching. It consists of two rooms for resident janitor, histological, main lecture, dispensary, reception and chemical rooms; a dark room, large cloak room, large waste room, two dressing rooms and an anatomical lecture room. The building is plummed for water and lighted by gas and electricity.

"Thirty-five students were matriculated. Ten were graduated.

"Someone has said 'The future is to be judged by the past. What will be has been.' This principle is correct. The development or carrying out of the principle, or, as the medical student would say, the clothing of the skeleton is left to man.

"Life is prospective. We live in the future largely, forgetting the past and present. There are three things in this world with which we have to contend, viz.: 'Religion, society and nature.' Remembering these things and having given a brief retrospect of the life of the Kansas Medical College, what can we say of its future?

"We believe the future of the college is assured, from the fact that it was founded with the proper motive and on the right principle. Because of the benefit to be derived not only to those who teach, but all who come under its influence are stimulated to greater exertion in their professional work. It calls to labor. Because there is a necessity for it, as its growth indicates, and room for it. Yes, there is room for every good thing. They make room for themselves. And, lastly, our confidence in its future is steadfast, and assurred by its men and women graduated in the classes of 1892 and 1893."

Thus ended the third year of the Kansas Medical College, it being a pronounced success in every respect.

Biliousness.

What used to be called biliousness is now regarded as acute indigestion. In the latter there is a sluggish condition in the portal circulation, or it may be a catarrh of the duodenum.

The symptoms are a furred tongue, a slight sallow appearance of the skin, and the whites of the eyes or sclera present a muddy appearance, due to the absorption of the biliary salts into the blood. There is a feeling of malaise and a loss of appetite. Calomel was given in these cases formerly with a view to increase the activity of the liver cells and overcome its torpidity, and thus carry off the excess of the biliary secretions. It is now known that there is not an excess of bile in the liver at any time.

The bile is poured out into the intestines and assists in emulsifying the fats. The bile not used is taken up and carried back into the liver and used again; hence the bile continues to make an endless round from the liver to the intestines and back again, acting as a disinfectant, and stimulates the intestinal walls, preventing constipation.

This condition of so-called biliousness is best treated by lavage. The stomach should be washed out with a pint of warm water, containing ten grains of the bicarbonate of soda. Should this not be tolerated, a smaller quantity of the alkaline solution, what can be retained, should be given at intervals to flush the liver. The fluid is taken up by the portal vein and carried into the liver, distending the bloodvessels and facilitating an expulsion of its morbid contents into the intestines.

This treatment should be followed by—

℞

Acidi hydrochlor. dil.....ʒ iij
Tr. gentian comp. ad..q. s..ʒ iv

M. Sig.: Teaspoonful in water after meals.

For those who object to the bitter, let them take hydrochloric acid in water.

Bile is a derivative of the albuminoid substances, and hence the diet is of the utmost importance.

Gormandizing should be forbidden. It is not the kind of food so much, however, as the excess that produces indigestion.

An over amount of any kind of food will not be properly digested and proves to be an irritant.

Out-door exercise, plain diet, a reasonable quantity and at regular intervals, should be prescribed. When weary, soups or broths should be taken until the tired feeling passes off before the meal proper is eaten. And a hearty meal should not be eaten when very tired and weary.

DR. JOSEPH A. SENNER has been appointed commissioner of immigration at the port of New York; vice Dr. Weber resigned.

The State Society.

The Kansas Medical Society will meet in Topeka on the evening of May 10th. The prospect for a large attendance and a profitable meeting is very flattering.

The committee of arrangements have secured representative hall for the meeting. There will be plenty of room for exhibitors, and no convenience will be lacking to make the meeting pleasant for all parties.

The secretaries of the different sections have been doing good work, and we can be sure of a good program. The railroad facilities for reaching Topeka are excellent, and many members, who have been unable to attend for several years, will, we hope, avail themselves of the present opportunities.

The advantages gained by the regular attendants of medical societies is too obvious to need any comment. It is a duty every physician owes to himself and his patrons.

The slight expense involved should not be a great consideration to any man who desires to keep up with the procession.

The attending physicians will receive a hearty welcome by the physicians of Topeka, and everything will be done that may make their stay here a pleasant and profitable one.

THE Northeast Kansas Medical Society and Protective Association will hold their regular meeting in Topeka, Monday, April 10, at 2 P. M., in A. O. U. W. hall, 723 Kansas avenue.

PROGRAM.

1. Gastritis.—Dr. L. P. Paddock, Netawaka.

Discussion opened by Dr. S. M. Riggs, Muscotah.

2. Pathology of Cholera.—Dr. S. G. Stewart, Topeka.

Discussion opened by Dr. P. R. Moore, Effingham.

3. Treatment of Cholera.—Dr. W. F. Troughton, Seneca.

Discussion opened by Dr. Maggie L. McCrea, Topeka.

In the evening at 7:30 o'clock the Topeka Academy will meet, at which the following program will be rendered:

1. The Anatomy of the Lungs.—Dr. D. F. Rodgers.

2. The Physiology of the Lungs.—Dr. T. W. Peers.

3. Microscopical Sections of the Lungs.—Dr. R. S. Magee.

4. Pneumonia.—Dr. J. H. Cannon.

5. Methods of Treatment of Pneumonia.—Dr. L. N. Plummer, Muscotah.

General discussion.

This will be a joint session. This program is a bounteous feast of good things. Let everyone come and enjoy it.

Very respectfully,

R. S. MAGEE, M.D.,
Secretary Northeast Kansas Society,
W. E. MCVEY, M.D.,
Secretary Topeka Academy.

THE annual meeting of the Eastern Kansas Medical Society will meet in Topeka, Thursday, April 13, 1893, at 7:30 P. M.

PROGRAM.

1. Address by the President.—Dr. L. H. Munn, Topeka.

2. Report of Case.—Dr. E. D. F. Phillips, Lawrence.

3. A Study of Comparative Anatomy.—A. H. Thompson, D.D.S., Topeka.

4. Acute Peritonitis.—Dr. C. E. Fulton, Hoyt, Kas.

5. Contagious Diseases of Insects.—Prof. Vernon L. Kellogg, professor of entomology State University.

If time and opportunity offers, the following papers will be read, which the authors had prepared, but were unavoidably prevented from attending our last meeting:

1. The Doctor and his Responsibility.—Dr. A. B. McCandless, Holton.

2. Appliances for the Treatment of Fractures of the Upper Third of the Humerus.—Dr. L. J. Lyman, Manhattan.

3. Case of Laparotomy for Peritonitis.—Dr. W. R. Roup, Lebo, Kas.

The Colon, Its Diseases and Treatment.—Dr. S. G. Stewart, Topeka.

Very respectfully,

L. H. MUNN, M.D.,
President.

R. S. MAGEE, M.D.,
Secretary.

Potassium Iodide in the Diagnosis of Phthisis.

An observation, which a few years ago was made by Sticker, is being confirmed recently by the same author in regard to a peculiar action of potassium iodide in doubtful cases of phthisis. It appears that in instances of this disease, when no rale or blowing murmur is detected at the apex of the lung, the seat of the lesion, small doses of the drug gave, in a few days, rise to the appearance of wanting signs. The medicine seemed to stimulate secretion, especially in the neighborhood of dead tissues, thus producing rales. In four cases of suspected tuberculosis, where negative results were obtained from physical examination of the lungs, the ingestion of the potassium salt, for purposes of diagnosis, produced distinct signs of localized reaction.—*Col. Med. Jour.*

When are Cured Diphtheritics Safe?

Roux and Yersin (Pasteur's Laboratory) announced some time ago that the bacillus of diphtheria may be found in the pharynx of persons, who have suffered from the disease, as long as five weeks after their apparent recovery and the disappearance of the diphtheritic membrane. Since then, other equally accurate investigators have, by actual inquiries, confirmed this statement. Tobieson (*Centralblatt fur Bakt. u. Parasiten Kunde*) made examinations of forty-six cases of diphtheria, in which he found the germs of this disease at various periods after the disappearance of the membrane. —*Ex.*

Gunshot Wound of the Brain.

Drs. Morgan & Morgan, of Clay Centre, Kansas, report the following case:

About March 1, 1893, they were called to see a child eight months old, which had been shot in the head with a 22-calibre revolver. The ball entered on the right edge of the anterior fontanelle, ranging downwards, backwards and outwards, passing out through the occipital bone about one and one-fourth inch to the right of the occipital protuberance. The tumefaction under the skin marked the point of exit of the bullet. The ball was easily reached through an incision in the skin.

Symptoms.—There was shock, from which it recovered in a few hours. About eight hours after the accident the temperature ranged from 100° to 101°, but within forty-eight hours the temperature was normal, and remained so. Some fifty-six hours after the injury there was complete motor paralysis of the left side of the body. In a few hours after the paralysis came on there was a convulsive movement of the left hand and arm, and a contraction of the thumb and fingers.

Improvement began in about twenty-four hours after the last-named period, and at the end of the tenth day the paralysis passed off and the child made a good recovery.

The order of improvement was first the foot and leg; second, the hand and arm.

The child was teething and was taking the bromide of sodium to relieve its irritable condition. The dose was increased, which was practically the treatment, aside from caring for the wound.

THE forty-fourth annual session of the Medical Association of Georgia will be held in Americus, Georgia, April 19, 20 and 21, 1893. An excellent program has been prepared. Members of the medical profession are cordially invited to attend.

DAN H. HOWELL, M.D., *Secretary*,
Atlanta, Ga.

An Address.

BY W. S. LINDSAY, M.D., TOPEKA, KANSAS,

PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE KANSAS MEDICAL COLLEGE.

To the Graduates of the Kansas Medical College, Class of '93:

As citizens of the State of Kansas and our fair city of Topeka, we are here to-night to witness exercises of which you are the central figures. In every great undertaking in life there is a desideratum to be attained; in every enterprise, an object to be gained, the worth of which is thought to be greater than the energy expended in the accomplishment.

In the numerous departments of science and art, the wealth and years it may be of patient toil, are considered fully compensated for by the fineness and good quality of the product. In this sense we present you to-night to public inspection.

Here, fellow-citizens, is the product of your Kansas institution ready for market. Here are the individuals who, through three years of training and application to their studies, we find worthy to begin the practice of the healing art.

And now to you, as graduates in medicine, let me address a few parting words of counsel. It has been said a very large class enter the learned profession with no higher motives than such as characterize commercial enterprises, pursuing them as a business, and more anxious to erect monuments like that of Nebuchadnezzar in the plain of Dura than such as fill the niches of fame. Make sordid wealth the object and sole end of their industrious aims.

In these days — this transitional period of our civilization — when everything seems to bend to "getting on" in the world, it is not surprising that the doctor should become imbued with the spirit of the time and strive to accumulate sufficient of the world's goods to place him in affluent circumstances.

To accomplish this, many times the banner of true medicine must be lowered, sometimes even trailed in the dust, to our shame be it said.

A wise man in this world will not set his heart on "getting on," and will not push very much to get on. He will do his best, and humbly take, with thankfulness, what the hand above sends him. It is not worth while to push. The whole scheme of money-making is so capricious and uncertain that no man can count on it, and no wise man will.

On this subject let me enjoin upon you to avoid belonging to either of the two classes of people: The first, those who are unable to keep their own money in their hands, and the other, those who cannot keep their hands from other people's money. Aside from the loss to your professional progress, this injunction may not be so important, for, as has been said by Sir Benjamin Brodie, "Medicine is a most noble profession, but a miserable trade."

You who have entered this high calling owe it to the science and art of your profession, as well as to the part of humanity which may come under your care, to expend your best energies in the study of medicine.

Although this night you receive the degree of doctor in medicine, you should never cease to be students — not students of medicine merely, but students in the broadest sense. Make yourselves not only counsellors in time of sickness, but valued citizens in your community. Keep alive to all that concerns the common good of humanity. Let your cerebral centers be cultivated to the highest possible pitch, so that, as expressed by Harriet Beecher Stowe through one of her characters, you may become "facultized" persons with a variety of knowledge at your finger tips, ready for instant use. To your patients you must stand in the relation of protector and educator, giving timely warning to protect from the ravages of disease, and educating the busy people to avoid this everlasting hurry and worry and the various excuses which do so much to wreck human lives and fill our insane asylums.

This scope of knowledge reminds me that while we must have general knowledge of a

great deal, we should not try to cover too much in our practice. Pope says:

"One science only will one genius fit,
So vast is art, so narrow human wit."

The science of modern medicine has grown to such proportions that the wit of one poor human being is incapable to accomplish the detail of all its branches.

It is not necessary for everybody to know everything, but it is much more to the purpose for every man, when his time comes, to be able to do something well.

As you begin your practice, two important conditions will rise before you, relative to your patients. The first is, that cases seen during your course of instruction are presented already diagnosed or with a preceptor at hand to lead you to a proper diagnosis.

You are now called upon to walk alone, possibly in the dead of night to recognize, through your cultivated senses, the pathological conditions that may be presented to you. And on the thoroughness with which you have done your work, and the application you continue to give to study, will depend your success. The second is, that your patient is a patron. Don't be unduly influenced by this fact. Don't be exercised in any way to interfere with a quiet and careful examination of the case. Recognize before you simply a man with brain, heart, lungs and most likely a stomach. Although he may be the most wealthy and influential citizen of your place, don't hesitate to tell him, if you clearly recognize the fact, that he is exhausting his energies by too close application to business or by indulgence in improper diet.

Record as complete a history of the case as possible, and give advice in a clear and concise manner. If a prescription is necessary, let it be written most carefully. If no medicine is needed, have the courage to frankly tell him so. Your examination and advice are worth more without than with a prescription, if none is indicated.

The study of your cases and the review of your case book will, in time, constitute a great part of your capital stock.

After you have had sufficient methodical experience, you may begin to garner useful knowledge for your successors in the profession by writing papers.

Join medical societies and attend the meetings regularly. While you give good advice to your patients about the preservation of their health, don't forget your own. Remember that one of the greatest elements of success is a healthy body, and that, in a sense, mind is but a secretion from the cells of the gray matter of the brain as the bile is from the liver.

Unhitch occasionally from the arduous labors of a busy practice, and yourself as as well your patients will receive a benefit.

And now, equipped to begin your life's work, enter the field for a long race. Select the place in which you will like to live, without regard to temporary convenience, and there establish yourself. Remember that "Much must be borne which it is hard to bear; much given away which it were sweet to keep." Don't be discouraged if your success is delayed. If you are faithful to your studies, you will be the better prepared when your field day comes, and it will come. Remember that your minds must be well stored with the practical things of life, for with the majority of people it is not possible to make use of more than a tithe of what has been known at some time. Even our most illustrious people in literature and art are not able to express to others the refinement and perfection of their ideas.

The painter who has made the canvas speak, and the sculptor who has made the marble breathe, still have lingering in their imaginations objects of greater beauty and more perfect symmetry.

And now I say, in the name of the Kansas Medical College, that whatever of joy or sorrow the future may bring to you, may it always find you worthy worshipers at the altar of science, ever lending the best powers of head, heart and hand toward adorning and keeping clean that which we this night commit to your charge.

SOME changes have been made in the editorial staff of the journal.

The Value of Carbohydrates for Diabetics.

In the *Deutsche Medicinische Wochenschrift* No. 33, 1892, Dr. Leo presents his view of the proper way to nourish patients suffering from diabetes mellitus.

In most methods of treating diabetes the chief attention is directed to preventing or reducing to a minimum the excretion of sugar. To accomplish this end, carbohydrate food is forbidden, and in most cases this regimen is followed by an improvement in the patient's condition. But this improvement is not always of long duration.

Marked digestive disturbances occur, and the patient loses flesh in spite of the diminution in the excretion of sugar. If carbohydrates are again allowed to form, in moderate quantities, a part of the nourishment, the condition is often improved, even if the excretion of sugar reaches its former height. This has a double cause — the appetite is improved by the change in diet, and the digestive organs are relieved from the burden of excessive quantities of albumin.

The *role* which the carbohydrates play in the food of the diabetic is doubtless a complicated one.

Dr. Leo has conducted some experiments which gave him the opinion that the carbohydrates, besides their harmful action in diabetes mellitus, may also have, in a certain sense, a favorable action. Hirschfeld observed a case in which the absorption of fat was improved by eating white bread. Troje holds, too, that when moderate quantities of carbohydrates are used continuously, the patient's power of assimilation improves.

Leo still thinks the reduction of the carbohydrates in the food of the greatest importance in the treatment of diabetes, and he would exclude them wholly in the beginning of the treatment. But he holds that, after a time, they may be allowed in moderate quantities with advantage even in severe cases. When, and for how long, to allow this he thinks should be strictly individualized. In general he allowed it to be determined by the weight of the patient and the amount of urine passed in twenty-four hours. He thinks it a mistake to make the amount of sugar given off the only measure of the condition and treatment of the patient; for what will it avail to reduce the excretion of sugar to the minimum if the patient himself also fails increasingly? Only the careful consideration of the whole condition of the patient, and the belief that a portion of the carbohydrate food may be assimilated, even by severe diabetics will prevent such mistakes in treatment —*Reports on Therapeutic Progress.*

The Treatment of Albuminuria.

After considering the dietetic regimen in regard to the treatment of albuminuria, G. See (*Bulletin de l'Academie de Medecine*) concludes a lengthy article as follows:

1. Bleeding, dry cupping and blistering are all therapeutic measures that tend to increase the albuminuria and the nephritic disorder.

2. Sudorifics, destined to enhance the action of the skin, such as lukewarm baths, massage, saline mineral waters and vapor baths, are, to say the least, dangerous measures. Internal diaphoretics, particularly pilocarpine, are toxic and too much uncertain.

3. Diuretics are only useful in certain nephritic oligurias, and have no general application. They are especially contra-indicated in interstitial nephritis. All diuretics are to be condemned, particularly the sodic alkalines, Vichy, Royat, and Saint-Nectaire mineral waters. Lactose may be employed, as it does not affect the kidneys directly.

4. Purgatives are no better than diuretics.

5. The cardio-vascular medicaments, such as digitalis, strophanthine, convallamarine, caffeine and sparteine have no special application; they rarely act as vascular agents alone, and are poisons to the kidneys with the exception, perhaps, of caffeine and sparteine. The iron preparations, considered as tonics,

such as the wine of quinquina, for instance, are sure to increase the nephritis.

6. The vaso-motor iodides, which are generally vaso-motor dilators, are only serviceable as antisyphilitic remedies, and are to be used in renal diseases of syphilitic origin. They do not cause renal obstruction since they are readily absorbed, although their elimination is not always certain.

7. The remedies recently brought forward are strontium and calcium.

The observations of Paul, Dujardin-Beaumetz and those of the author prove that these therapeutic agents are of value. They may be prescribed as follows: Lactate of strontium, 4 grammes per day; bromide of strontium, 4 grammes per day; bromide of calcium, 4 grammes per day; chlorobromide, 4 grammes. The latter substance is of special advantage, as it does not cause symptoms of bromism.—*Reports on Therapeutic Progress.*

Acute Tonsillitis and Pharynitis.

Dr. Newcomb (*Jour. of Laryngol., Rhinol. and Otol.*) says that salol will relieve the conditions mentioned quicker than any other remedy if there is much peritonsillar enlargement. He believes in an incision toward the median line, whether there is evidence of pus or not. It frequently gives great relief. Where pus is present, free incision, followed by a hot bicarbonate of soda gargle, gives satisfactory results. In all cases a thorough evacuation of the bowels should precede other remedies. This is particularly necessary with salol, which in the alkaline duodenum needs contact with the pancreatic juice to split up and set free its component parts. The urine in patients taking salol is generally darkened, but that need cause no alarm. No poisonous symptoms have been observed and only occasional tinnitus.

NOTE.—Experience, fortified by good results, establishes salol or salicylate of soda as the ideal remedies when their use is preceded by a saline cathartic.—*Jour. of Materia Medica.*

Eleventh International Medical Congress.

The inauguration of the Eleventh International Congress will take place the 24th of September, 1893, in the presence of H. M. the king of Italy.

The work of the Congress will begin in the nineteen sections on the morning of the 25th of September. It will be continued in accordance with the arrangements to be made, and published both for the general sessions and the sections. Some of the general sessions will be devoted to scientific addresses delivered by scientists of all nations.

It is the earnest wish of the central committee to receive applications at an early date. The admission fee of five dollars may be sent to the treasurer, Prof. L. Pagliani, Rome, Italy; in return, the ticket of membership will be forwarded. It is requested that a visiting card, containing name and address, be sent with each application to facilitate exact spelling. The undersigned chairman offers his services to whosoever will direct him to forward both application and fee.

Attention is also directed to article II of the regulations, according to which papers must be announced at headquarters on or before the 31st of July.

Very respectfully,

A. JACOBI,

Chairman American National Com.,

110 West 34th St., New York.

THE following physicians have been appointed members of the advisory council of anatomical section of the Pan-American Medical Congress: Dr. F. Mall, University Chicago, Chicago; Dr. Chas. F. Dolley, 3707 Woodland avenue, Philadelphia; Dr. Edward K. Dunham, Carnegie Laboratory, New York; Dr. Elizabeth R. Bundy, Woman's Medical College, Philadelphia; Dr. Wm. M. Gray, Army Medical Museum, Washington; Dr. H. C. Tinkham, University Vermont, Burlington, Vt.

Memorizing Doses.

Dr. G. A. Wiggins gives the following rules: 1. The dose of all infusions is 1 to 2 ounces, except infusions of digitalis, which is 2 to 4 drachms. 2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5. 3. All wines, from ½ to 3 fluid drachms, except wine of opium, which is 5 to 15 minims. 4. All poisonous solid extracts you can give ½ grain, except extract of calabar bean, which is 1-12 to ¼ grain. 5. All dilute acids, from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims. 6. All aquæ, from 1 to 2 ounces, except aqua laurocerasis and aqua ammonia, which are 10 to 30 minims. 7. All medicated syrups, you give 1 drachm. 8. All mixtures, from ½ to 1 fluid ounce. 9. All spirits, from ½ to 1 fluid drachm. 10. All essential oils, from 1 to 5 minims.—*Pharmaceutical Record.*

Treatment of Cholera.

Christmas, in his studies at the Pasteur Institute, found that 1 gm. of citric acid per liter of water produced an inoffensive beverage, capable of preventing the growth of the bacilli of cholera and typhoid fever.

Lowenthal recommends for the treatment of cholera the administration of salol, which, according to him, is almost specific.

He gives at first 2 grams, then 50 centigrams to 1 gram every half hour. A physician, in treating 53 cases by this method, had only three deaths.—*Modern Medicine.*

Treatment of Enteralgia of Infants.

Nothing affords a mother more delight than to have prescribed for her babe something that will relieve and cure these terrible attacks. If of a purely neuralgic character, these attacks can be not only cured, but prevented by the administration of cinchona or some suitable form of one of its various preparations; but when the attacks are colic or enteralgia, I rely for its cure upon a mixture of equal portions of lactopeptine and subnitrate of bismuth. During the first month of infantile life I usually give a half grain each of lactopeptine and subnitrate of bismuth every hour during the attacks. I direct the mother to place the powder made of this combination upon the babe's tongue every hour, and continue it whenever the child is awake, until the recurrence of the colic is entirely prevented. After the first month I give two grains each of the lactopeptine and bismuth every hour. I commence this treatment during the attacks, and after a few doses the babe soon gets quiet and goes to sleep. I instruct the mother or nurse to persevere in the administration of these powders, and in a few days she will be rewarded by the pleasure of finding that her babe escapes the daily attacks of terrible colic.—J. B. Johnson, M.D., of Washington in *Southern Clinic.*

Section of General Medicine of Pan-American Medical Congress.

This unique assemblage promises to be one of the most important events that has occurred in the history of medicine in the Americas. Its success is assured by the large number of valuable papers already promised.

The section on general medicine, which is one of the most important that has been created, bids fair to be one of the most successful in the entire Congress; and already many valuable contributions are in process of preparation, and will be read at the meeting in September. It is hoped, with the hearty co-operation of all physicians living not only in North, but also in South and Central America, that the work in this section will be memorable, and each physician living on this continent is requested to join this most important section, and to prepare a contribution to be read before that body. It is especially requested that those intending to join this section or to read papers shall at once send their names, with titles of papers, to the secretary, Dr. Judson Daland, No. 319 South Eighteenth street, Philadelphia, Pa., so that they may be noted on the calendar and given their appropriate places.

Alumni Association.

The graduates of the Kansas Medical College held a meeting in the lecture room of the college building, March 21, 1893, and organized an Alumni Association, adopting a constitution and by-laws for its government.

Dr. John L. Gilbert was elected president; F. H. Battey, M.D., secretary; W. H. Going, M.D., treasurer; J. L. Owen, M.D., first vice-president; and Frances Storrs, M.D., second vice-president.

The association will meet annually on the day following the commencement exercises of the college.

JOHN L. GILBERT, M.D.,
President.
F. H. BATTEY, M.D.,
Secretary.

THE thirty-fifth semi-annual meeting of the South Kansas Medical Society will be held in the city of Hutchinson, Tuesday, May 2, 1893.

An interesting program is promised, but could not be gotten in shape for this publication; but from the reputation of the gentlemen who will read papers at this meeting, and the introduction of the clinical feature of the society's work, it is anticipated that this meeting will equal, if not surpass in interest, any former meeting of our society.

All physicians in good standing with the profession are cordially invited to be present and to bring with them any interesting cases to present to the clinic that they can.

O. B. WHITTECAR, M.D.,
Secretary.

THE Physicians' Supply Co., of Kansas City, have removed from their old quarters on Wyandotte to 916 Walnut street, where they have large, convenient and elegant rooms. They are prepared to do all kinds of repairing, and manufacture anything you wish in the instrument line.

The Coca of Peru.

That all men and women feel the weariness of life is testified by the fact that the people of all nations and climes have the universal habit of daily seeking a restorative and stimulant in one of the vegetable products which contain a substance or alkaloid capable of exercising a definite effect on the nervous and cardiac systems. Thus the Chinese and Japanese sip their tea, and the English, following their example, brew the five o'clock cup of the fragrant herb to sustain them in the day's work. The Arab and Turk seek, like the French and Germans, restorative powers in the aromatic coffee berry, the Cingalese chew the betel nut, and the natives of Peru, on the slopes of the Andes, find in coca leaves a principle which sustains the body in fatigue and comforts the mind in hopelessness. Von Bibra says of coca: "It satisfies the hungry, lends new strength to the weary and fatigued, and makes the unhappy forget his grief." What, then, is this strange substance which seems to conceal a fairy's wand?

Coca is obtained from the leaves of shrub-like plant, called the erythroxylon coca. It is a native of Peru and Bolivia, where it has been cultivated with the greatest care from the remotest antiquity. When Peru was conquered by the Spaniards in the sixteenth century, and the ancient and interesting people of this country were discovered, it was found that their Incas, or kings, looked upon the cultivation of the coca plantations as a public and national duty, and also that the strange custom prevailed among the Peruvians of chewing the leaves of the coca plant during frequent and short periods of repose, especially set aside for this purpose. This custom prevails to this day in Peru and Bolivia.

The physical effects of coca are salutary, and in many respects more remarkable than the mental. It is universally acknowledged that coca stills hunger, overcomes drowsiness and increases bodily activity. All travelers in the Andes bear testimony to the wonderful power shown by the Indians of

enduring fatigue, cold, wet and exposure with only the scantiest allowance of poor food if they are supplied with coca. The life of the Indian of the Andes is one of extraordinary toil and hardship. His diet consists mainly of a small quantity of maize and frost-dried potatoes. He is constantly exposed to the intense heat of the plains, or to the terrible cold of the high plateaus of the Cordilleras. The toil exacted of him in the mines and the plantations is excessive, but he is yet able to perform, not exceptionally, but constantly and as a matter of daily life, the most astonishing feats of endurance on a diet which would be absolute starvation to a European, or even for a time without food at all, by the aid of the power which coca gives.

The most striking stories are told of the men engaged in the postal service, who, half-naked, traverse the icy slopes of the Andes, carrying the heavy mail bag. These men walk from 200 to 300 miles, crossing the mountain by paths rising 13,000 and 14,000 feet above the sea-level. Their scanty clothing is an ill-protection against fierce snowstorms, the intense cold and the rarefied air of the Andes. Their food for the journey consists of from one to two pounds of dried maize and potatoes, but if supplied with sufficient coca to chew, they endure cold, hunger, fatigue and sleeplessness, not only without complaint, but without even seeming to be aware of them. In like manner the Indian labors in the mines of the Cordilleras, whose toil is spoken of as incessant and excessive, and performed in damp, cold and darkness; the shepherds tending their flocks of alpacas on the bleak pampas and the farmers irrigating their fields at night in midwinter on the high plateaus, standing often knee-deep in icy water and exposed to cutting blasts, are all said to be equally inured to a life of surprising hardship and privation by the daily use of coca. It is stated, however, that though no hermit or monk ever lived so ascetic a life as these poor Indians, yet the appetite for food is only stayed, not destroyed, by coca, and that if anyone is kind and generous enough to feed them they eat with voracity and evident enjoyment.

Spaniards who go to work on the mines cannot stand the great hardships of the life and the inclemency of the Cordilleras till they take to the regular use of coca. Von Tschudi tells us that this life of silent endurance and bitter abnegation may be much prolonged, even in one instance to 130 years.

The other remarkable effect of coca is the influence it exercises in the respiratory centers, so that the rarefied air of the higher altitudes of the Andes can be breathed without the distress usually occasioned at the height of thirteen or fourteen thousand feet above the sea. All travelers speak of the extraordinary way the Indian porters will keep up with the quick pace of the mule along the roughest mountain paths without ever showing any signs of breathlessness.

Though wonderful, but little credited, stories were told for two centuries of the staying powers of coca leaves, no attempt was made to introduce them into Europe, and scientifically to test their value either as dietetic or therapeutic agents until Mariani, of Paris, began his researches.*

I have had considerable experience of the value of Mariani's wine of coca under exceptional circumstances. Under pressure of time for public *viva voce* medical work, I found that I could work for from fourteen to sixteen hours a day for weeks together without mental or physical fatigue or bad after-results, if I took a small daily dose of Mariani wine. My modicum was a bottle a week, discontinued immediately after my task was done. Recently, when making a long convalescence from influenza, in which depressing cardiac symptoms were marked, I found again aforesaid Mariani wine a good and reliable restorative. I have no reluctance in saying that if I had to accomplish some severe work, which drew exhaustingly on my full mental and physical powers, doing literary work under pressure or attending patients through serious illness, I would unhesitatingly and with good conscience

*See his excellent work on "Coca and its Therapeutic Applications."

seek the support and power of endurance this marvelous preparation of coca can give.

Mr. Eber Caudwell published an interesting account in the *British Medical Journal* of the effect it had on himself in enabling him to go through long hours of toil without sleep, and while preserving his full mental activity and vigor. Singers find that coca Mariani enables them to inspire more deeply, and to hold their breath longer than they could otherwise do. Lennox Browne and Morell Mackenzie highly recommend it.

The scientific study of cocaine has led to a better comprehension of the mysterious qualities of the coco leaf. The first effect is sedative, rapidly followed by stimulation, in which the heart beats are quickened, the nervous system becomes more active, the intelligence more acute, and the muscles pass more easily into a state of contraction. Dr. Mantagazza says that when he was under the influence of coca he had an irresistible inclination to gympastic exercise. The absence of the sense of hunger seems to be due not only to the anæsthetic effect of the cocaine on the nerve ends of the stomach, but also to the fact that coca is an actual economizer of food, and so modifies the vital processes in muscle as to affect its chemical activity and render it capable of performing an equal and greater amount of work with a lesser consumption of carbohydrates (STOCKMAN). The absence of emaciation or subsequent debility or other bad results, after the most exalted powers of the organism have been called forth, point to coca being more than a nerve stimulant, but also an actual economizer of the bodily expenditure. If it diminishes the consumption of carbohydrates during muscular activity, that is to say, enables the machine to work with less fuel, less oxygen will be required, and hence is explained the effect coca has in preventing breathlessness when ascending high mountains. Too much stress cannot be laid on the importance of using only a reliable preparation of the drug.—*The London Hospital.*

SUBSCRIBE for the journal.

For Sale.

DRUG STORE.—A stock of drugs in Hot Springs, Arkansas. Invoice about $4,500. Will sell all or half. Proprietor desires to get outside. Trade mostly prescriptions, and runs from $35 to $45 per day.

C. C. KEYS,
703 Kansas Ave.

A GYNECOLOGICAL CHAIR.—A Canton chair, second-hand, in good condition. Price, $25. Address "M," this office.

A MICROSCOPE.—A Beck microscope; two eye pieces, two objectives, one-half and one-sixth inch; Abbe condenser, iris diaphragm, nose piece; in excellent working order; very cheap. Address "M," this office.

Treatment of Ringworm.

The recent treatments of tinæ tonsurans show a strong tendency toward the use of Losophan, a new and very active mycotic which has been giving remarkable good results. Losophan is a triiodocresol, very rich in iodine [about 80 per cent.] with which on application to dermatic lesions, it slowly parts, thus avoiding toxic effects, while making the pathological field untenable for living organisms. For these reasons Losophan is indicated in all cutaneous conditions, due to the development of the trycophyton fungus in mycosis, pityriasis, sycosis, prurigo, pediculosis and in all of the large groups of skin diseases, due to the presence of filamentous fungi or microspores. The clinical reports advise the use of Losophan in one to two per cent. ointments with lanolin or vaseline. Where a wash is needed, a solution shonld be made of one or two parts of Losophan in a mixture of twenty-five parts of water with seventy-five parts of alcohol. The mixture keeps well. Losophan has already been tested in the treatment of phimosis and chancre. The best results were gained from a one per cent. powder, dusted over the lesions.

Cineraria Maritima in Cataract.

R. P. Banergee reports (*Calcutta Med. Rep.—Medical Review*) several cases of cataract cured by the use of the juice of this plant, which is indigenous to India. In each case the opacity cleared away in a very short time. In commenting upon these the author remarks: Knowing that the natives of this country used the fresh juice of the plant in *motiabind* or *nazala* with results, I gave it a trial (because I have no eye instruments here and the cases were unwilling to undergo any operation) the results being successful.

Also in the *Pharmaceutical Journal* for May, 1888, one or two cases of cures have been noted. And I hope that practitioners in larger cities where they have better chances with patients unfit for operation, or unwilling to undergo such, would give the drug a fair trial. The plant is very common here, one variety called the *cartwheel* (cineraria maritima or grandiflora) is cultivated as a pot plant in the garden. The other variety, with red or purple and green stems, called in Hindoo *kukrainda* (C. Hybrida vel-exotica), grows near the bases of the old pucca brick buildings during the rains and early winter, and are mural plants, very common in the Northwest Provinces and Bengal. The application causes no pain beyond a little sensation of heat, lasting from three to five minutes.

PHYSICIANS are always interested in any new and reliable pharmaceuticals that are placed on the market. Among the latest novelties in elegantly-manufactured preparations, we would call your attention to Planten's "Perloids" or Improved Pearl-Shaped Capsules, of which we have just received samples.

Messrs. H. Planten & Son, New York, by long experimenting have succeeded in making a pearl-shaped capsule to which they have very happily given the name Perloids, and offer these to the medical profession as being in every way superior to anything of this form on the market, either of domestic or foreign manufacture.

Perloids are prepared from the finest materials by improved processes and machinery and filled with such valuable medicinals as apiol, copaiba, creosote, cubeb oil, damiana, morrhuol pure and with creosote, sandal oil, terebene, turpentine, etc., etc. They are readily swallowed, perfectly soluble, symmetrical of shape and elegant of finish, making them just the desideratum for prescribing. We suggest that you send for samples of Planten's Perloids, as we feel assured that you will be pleased with their superior merits. While you are writing you might ask for samples of their hard and elastic soft capsules.

Acute Muscular Gout.

Mr. A. B. of a gouty diathesis, complained of great pain in the chest; the pain was located at the end of the trachea, just above its bifurcation. The pain was so severe that his breathing was difficult. He also suffered with irregular heart action and great mental excitement. Diagnosis: "gout of the muscular coat of the trachea." Prescribed Henry's Tri-Iodides. Cured in a few days.

Its Action in Labor.

Antikamnia is a prompter and more decided in its action in labor than opium, and has none of the unpleasant after-effects. It may be continued in smaller doses to control after-pains, and rather favors than interferes with the secretion of milk.

J. B. RILEY, M.D.,
St. Joseph, Mo.

PERSONS desiring space for an exhibit at the meeting of the Kansas State Medical Society, which meets in Topeka May 10th, should apply to W. E. McVey, M.D., Secretary Committee of Arrangements.